SECOND YEAR T. D.C. SCIENCE, 2008-09

ZOOLOGY

The second year TDC examination shall consist of three theory papers, each of three hours duration and a practical examination of five hours duration.

Marks

Paper-I : Life and Diversity of Animals-II (Vertebrates)	**50**
Paper-II :Genetics and Biotechnology	**50**
Paper-III :Applied Zoology and Microbiology	**50**
Practical :	**75**

Pattern of question paper in the annual examination and distribution of marks :

Each theory paper in the annual examination shall have three sections i.e. A,B, and C. **In section A,** total 10 questions will be set in the paper, selecting at least two from each unit. These questions are to be answered in about 20 words. All questions are compulsory. Each question carries 0.5 mark, total 05 marks.

In section B, there shall be total 10 questions selecting two questions from each unit, five questions to be answered by the student selecting at least one from each unit. Answer should be given in approximately 250 words. Each question carries 05 marks, total 25 marks.

In section C, 04 descriptive type questions will be set in the examination paper from five units of the syllabus of the paper, selecting not more than one question from a unit. Each question may have two sub divisions. Students are required to answer any two questions approximately in 500 words. Each question is of 10 marks, total 20 marks.

SECOND YEAR TDC SCIENCE, 2008-09

ZOOLOGY

PAPER-I
LIFE AND DIVERSITY OF ANIMALS-II (VERTEBRATES)

Duration : 3 hours **M.M. : 50**

UNIT-I

1 Characteristics and classification of Protochordates and Agnatha upto orders with examples emphasizing their biodiversity, economic importance and conservation.

2 Type study- *Amphioxus*, *Herdmania*, general biology of *Petromyzon*.

3 Affinities of *Amphioxus* and importance of ammocoete larva.

UNIT-II

4 Characteristics and classification of Pisces (after Berg) and Amphibia upto orders with examples emphasizing their biodiversity, economic importance and conservation.

5 Type study- *Scoliodon*, *Rana*, types of scales and fins, fish migration: parental care in Amphibia.

UNIT-III

6 Characteristics and classification of Reptiles upto orders with examples emphasizing their biodiversity, economic importance and conservation.

7 Type study- *Calotes*. Identification of poisonous and non-poisonous snakes, venom, antivenom, medicinal significance of venom.

8 *Sphenodon*: Characteristics and affinities.

UNIT-IV

9 Characteristics and classification of Aves upto orders with examples emphasizing their biodiversity economic importance and conservation.

10 Type study - *Columba*, flight adaptations, perching mechanism, types of feathers.

11 *Archaeopteryx*, bird migration.

UNIT-V

12 Characteristics and classification of Mammalia upto orders with examples emphasizing their biodiversity, economic importance and conservation.

13 Type study – *Rattus*, (Digestive, respiratory and urinogenital systems only).

14 Dentition, hair and thermoregulation; integumentary derivatives.